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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,095	04/01/2004	Dominic A. Cataldo	BGT 2-007	9481
266	7590	05/03/2006	EXAMINER	
MUELLER AND SMITH, LPA MUELLER-SMITH BUILDING 7700 RIVERS EDGE DRIVE COLUMBUS, OH 43235				LEVY, NEIL S
		ART UNIT		PAPER NUMBER
		1615		

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/816,095	CATALDO ET AL.
	Examiner NEIL LEVY	Art Unit 1615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 06 February 2006.

2a) This action is **FINAL**.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-38 is/are pending in the application.

4a) Of the above claim(s) 8, 13, 16 and 21-38 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1,5-7,9-12,14,15,17 and 18 is/are rejected.

7) Claim(s) 2-4,19 and 20 is/are objected to.

8) Claim(s) 1-38 are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 01 April 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>12/15/05</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

## DETAILED ACTION

### ***Election/Restrictions***

Applicant's election with traverse of group I in the reply filed on 2/6/06 is acknowledged. The traversal is on the ground(s) that . Zeolites are not claimed. .

This is not found persuasive because Except for comparison, "zeolites" do not appear in the restriction/election requirement. Nano-clay intercalates control methods, Group I, will be examined. Elected species are polyurethanes, montmorillonite, bifethrin, and ants..

The requirement is still deemed proper and is therefore made FINAL.

Claims 8, 13, 16, 21-38 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention and species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 2/06/06.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 14 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

----- There is no "said polymer" in claim 1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 1, 5-7, 9-12, 14, 15, 17, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over OHNO et al 5876738 in view of BEALL et al 5730996

Methods of fungal control, using triazoles (col 2). Triademefon, with nano-clay intercalates of montmorillonite incorporated into polymeric (polyurethane-col 7, line 37) constituting the instant barriers (col 3, lines 8-19) are disclosed. Size is 10 nm.

However, ion exchange by applying a solution of active (col 4, top) is shown using ammonium ions as inorganic complexes (col 4, bottom).

BEALL (col 11, top) also utilizes pesticidal intercalated nano-clays, montmorillonite (col 10, lines 37-39) ammonium functionalized water-soluble polymers (col 11, lines 3-22; col 16, lines 6-8, 27-32) are acceptable intercalant polymers. As polymers, there are more than 6 carbons.

Pesticides, include NOT only the triademefon (col 19) fungicides of OHNO, but also the instantly claimed insecticides, cypermethrin, isofenphos, fenvalerate, permethrin, pyrethrins (pyrethrum) endosulfan and organophosphate type insecticides (col 21). Although bifenthrin is unmentioned, it would be obvious that one in the art of insecticide use would be able to substitute any of the pyrethroids, given the variety of them disclosed herein.

The instant size and aspect ratio are seen as met (col 3, lines 8-55; col 8, lines 5-34) as the platelets of montmorillonite are those of the instant invention. BEALL uses mixtures of pesticides (claim 1 of Beall).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made desiring to utilize pest control means, to use any of art recognized means, as of the OHNO nano-clays modified as desired to increase stability, dispersibility, compatibility of ingredients, processing ease, reduced toxicity to handlers.

All the critical elements of the instant are disclosed. The amounts and proportions of each ingredient are result effective

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parameters chosen to obtain the desired effects. It would be obvious to vary the form of each ingredient to optimize the effect desired, depending upon the particular species and application method of interest, reduction of toxicity, cost minimization, enhanced, and prolonged, or synergistic effects.

Applicant has not provided any objective evidence of nonobvious or unexpected results that the administration of the particular ingredients' or concentrations provides any greater or different level of prior art expectation as claimed, and the use of ingredient for the functionality for which they are known to be used is not basis for patentability.

The instant invention provides well known old art recognized compounds, with well known art recognized effects, applied by well known art recognized methods to achieve improved control as is well known in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NEIL LEVY whose telephone number is 571-272-0619.

The examiner can normally be reached on Tuesday-Friday, 7 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THURMAN PAGE can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



NEIL LEVY  
Primary Examiner  
Art Unit 1615

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